

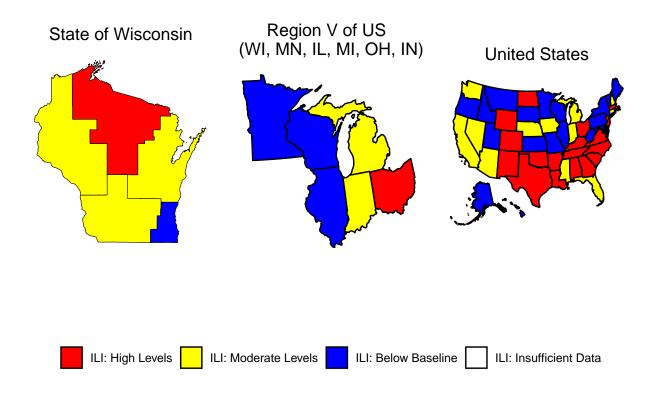


# Respiratory Virus Surveillance Report Week 4, Ending January 27, 2024

Wisconsin Department of Health Services | Division of Public Health | Bureau of Communicable Diseases | Communicable Diseases Epidemiology Section | www.dhs.wisconsin.gov/dph/bcd.html | dhsdphbcd@dhs.wi.gov

P-02346

## Influenza-like Illness (ILI) Activity



## Weekly Respiratory Virus Data, At-A-Glance

## Predominant virus of the week:

Influenza

### Key Messages:

- Influenza-like illness activity is decreasing across Wisconsin.
- Influenza, COVID-19, and RSV continue to circulate across Wisconsin at moderate levels. While COVID-19 and RSV activity is stable or decreasing, influenza has increased slightly over the past few weeks.
- It is not too late to get an influenza or COVID-19 vaccine. RSV vaccines are available for adults ≥60 years of age.

#### Influenza-associated pediatric deaths reported:

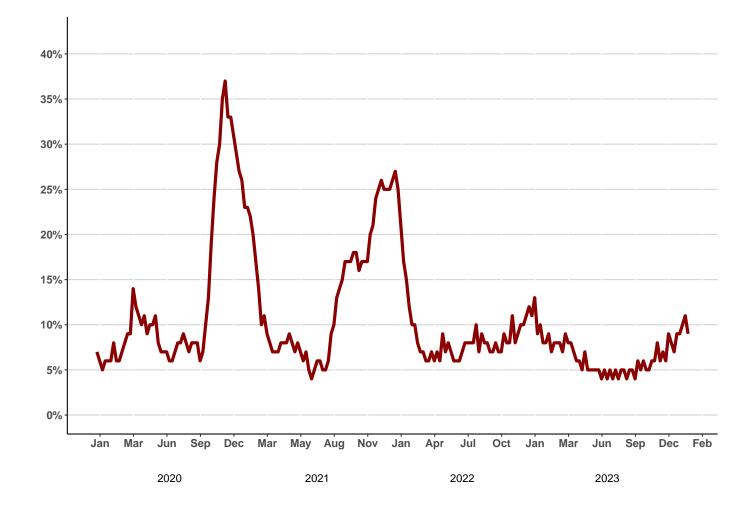
|            | Week 4, 2024 | Since September 3 |
|------------|--------------|-------------------|
| Wisconsin  | 0            | 0                 |
| Nationwide | 8            | 65                |

For National US influenza surveillance statistics visit: www.cdc.gov/flu/weekly/



# Respiratory Virus and Pneumonia-Associated Mortality

Percent of deaths associated with influenza, RSV, COVID-19, or pneumonia by week, Vital Records



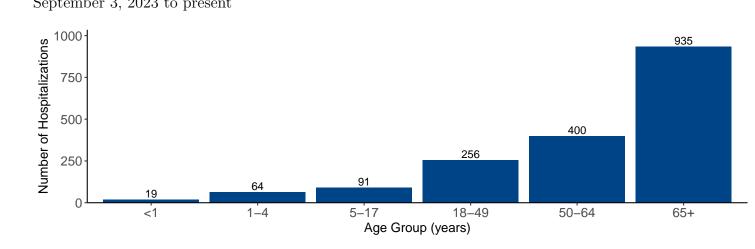
Respiratory virus and pneumonia associated deaths by most recent 3-week period, Vital Records

| Season<br>week | Pneumonia<br>(P) | Influenza<br>(I) | COVID-19<br>(C) | RSV (R) | P, I, C or R | Percent<br>PICR of all |
|----------------|------------------|------------------|-----------------|---------|--------------|------------------------|
| 2              | 80               | 9                | 47              | 6       | 125          | 10%                    |
| 3              | 93               | 17               | 36              | 5       | 123          | 11%                    |
| 4              | 51               | 8                | 30              | 5       | 78           | 9%                     |

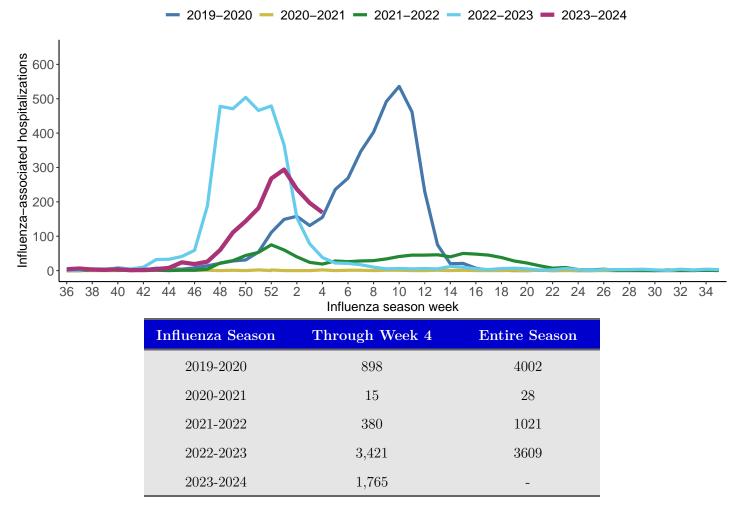


## Influenza-Associated Hospitalizations

Influenza-associated hospitalizations by age group, WEDSS September 3, 2023 to present



Weekly influenza-associated hospitalizations by influenza season, WEDSS

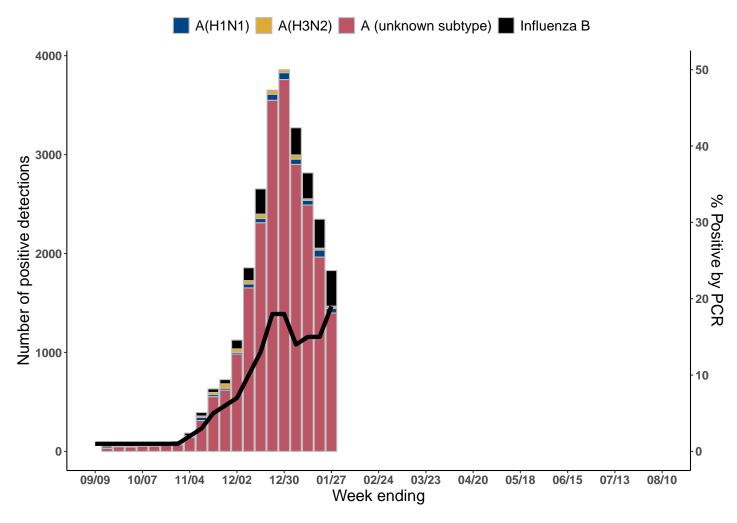


These data are preliminary and subject to change as more information is received.



## Wisconsin Laboratory Surveillance

## Wisconsin positive influenza results and subtypes by PCR, NREVSS



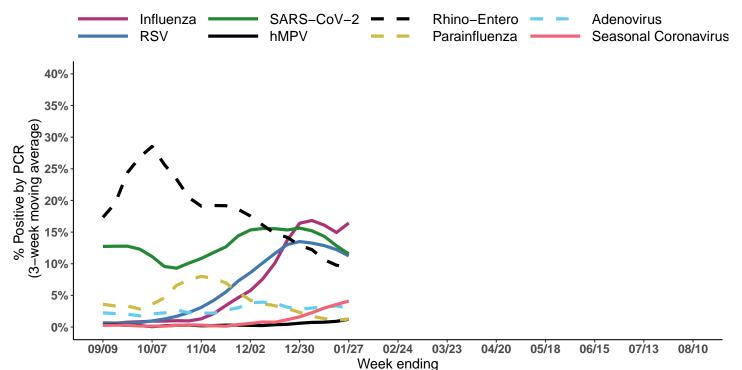
# Cumulative number of positive influenza PCR tests by subtype, NREVSS September 3, 2023 to present

| Measure               | Influenza<br>A(H1N1)pdm2009 | Influenza<br>A(H3N2) | Influenza A<br>Unknown | Influenza B | Total |
|-----------------------|-----------------------------|----------------------|------------------------|-------------|-------|
| Total positive<br>(n) | 593                         | 392                  | 23003                  | 2511        | 26499 |
| % of total positive   | 2%                          | 1%                   | 87%                    | 9%          | 100%  |



## Wisconsin Laboratory Surveillance for Respiratory Viruses

Percent postivity of respiratory viruses tested by PCR, NREVSS



Number and percent positivity of respiratory viruses tested by PCR, NREVSS Week 4, Ending on January 27, 2024

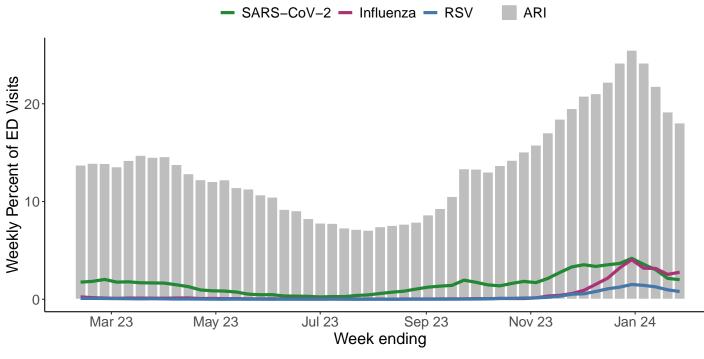
| Respiratory<br>virus | Tested | Positive<br>(n)                                       | Positive<br>(%) | H3N2               | 2009 H1N1            | Unknown            | Influenza B          |
|----------------------|--------|---|-----------------|--------------------|----------------------|--------------------|----------------------|
| Influenza            | 9,624  | 1,828   | 19%             | 22                 | 47                   | 1,399              | 360                  |
| Respiratory<br>virus | Tested | $egin{array}{c} { m Positive} \ { m (n)} \end{array}$ | Positive<br>(%) | Parainfluenza<br>1 | a Parainfluenza<br>2 | Parainfluenza<br>3 | a Parainfluenza<br>4 |
| Parainfluenza        | 688    | 11  | 1.6%            | 6                  | 0                    | 2                  | 2                    |

| Respiratory virus           | Tested    | Positive (n) | Positive (%) |
|-----------------------------|-----------|--------------|--------------|
| Respiratory Syncytial Virus | 6,583     | 662          | 10.1%        |
| Adenovirus                  | 689       | 16           | 2.3%         |
| Seasonal Coronavirus        | 607       | 26           | 4.3%         |
| HMPV                        | 688       | 13           | 1.9%         |
| Rhinovirus/Enterovirus      | $1,\!285$ | 132          | 10.3%        |
| COVID-19                    | 10,736    | 1,146        | 10.7%        |



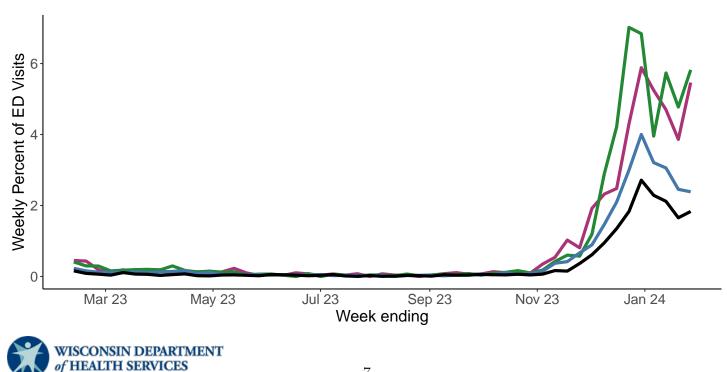
## Respiratory Virus Activity in the Emergency Department (ED)

Percent of ED visits with a diagnosis for a respiratory virus or acute respiratory infection (ARI), NSSP

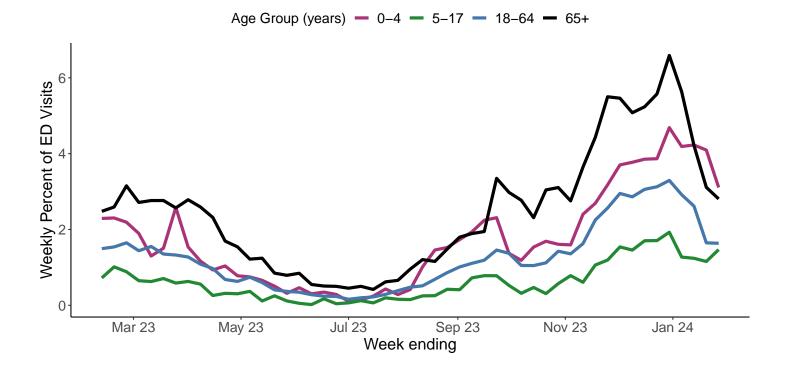


Percent of ED visits with a diagnosis for influenza by age group, NSSP

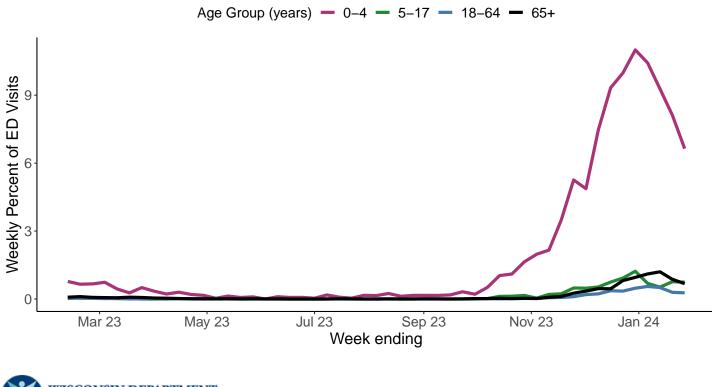
Age Group (years) - 0-4 - 5-17 - 18-64 - 65+



Percent of ED visits with a diagnosis for SARS-CoV-2 by age group, NSSP



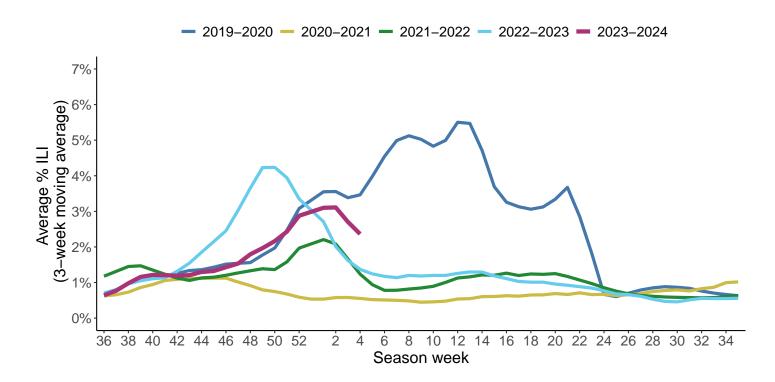
Percent of ED visits with a diagnosis for RSV by age group, NSSP



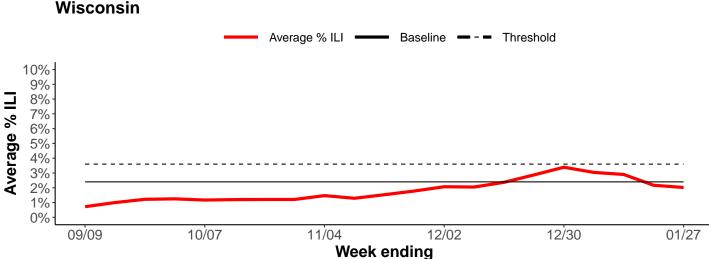


## Wisconsin ILI Activity

Three-week average percent of visits for ILI by influenza season, ILINET

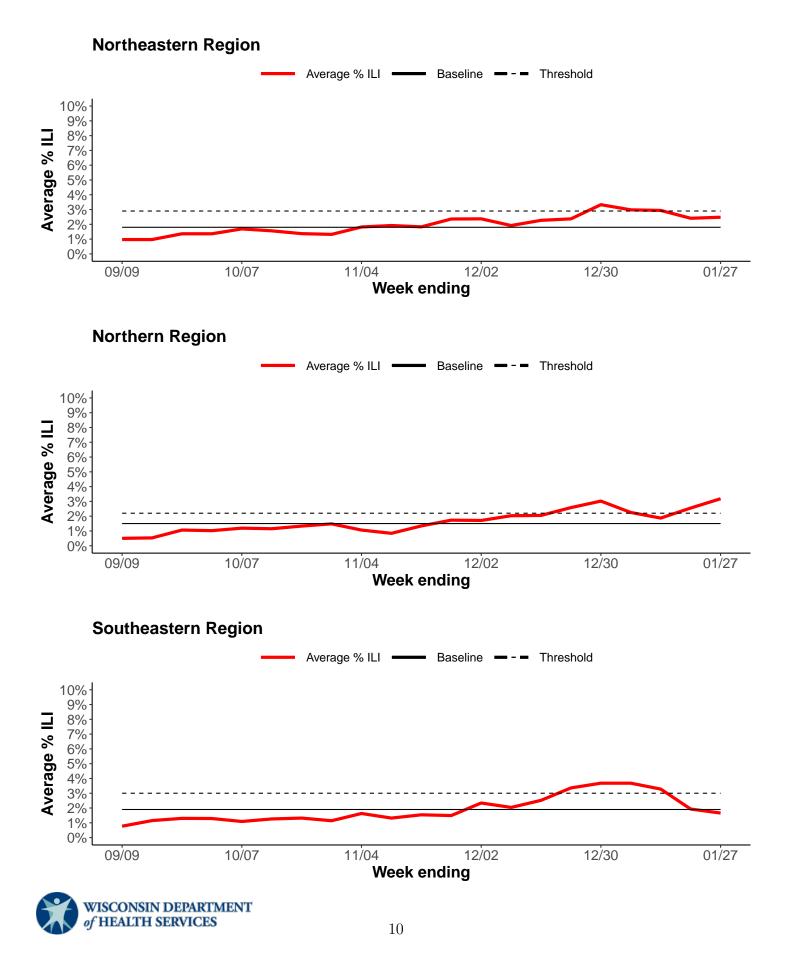


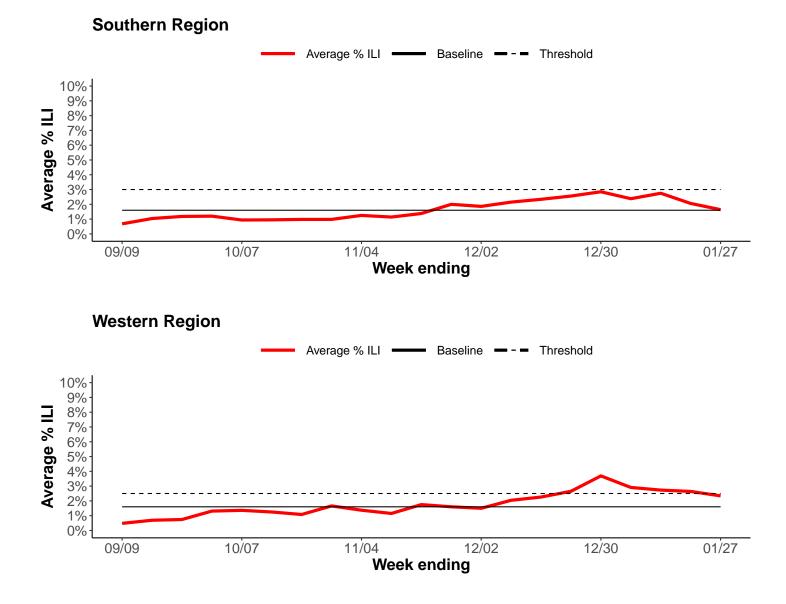
Average percent of visits for ILI by public health region, ILINET



**Wisconsin** 









# Understanding the Data

## Surveillance Report Description

| Influenza-like Illness<br>(ILI)                                 | Patients who present to a clinician with a fever $>=100$ degrees F and either a cough or sore throat.  |
|---|--|
| Influenza-like Illness<br>(ILI) Activity                        | Using baseline (expected value data used for comparision) in each of the public health regions in Wisconsin (https://www.dhs.wisconsin.gov/lh-depts/counties/index.htm), ILI below baseline is considered low activity, ILI between baseline and threshold levels is considered moderate activity and above threshold is considered high activity. (1)                           |
| Acute Respiratory<br>Illness (ARI)                              | ARI is a broad definition designed to capture all diagnoses related to respiratory illness, including SARS-CoV-2, influenza, pneumonia, and cough  |
| Predominant virus of<br>the week                                | These data are compiled from over 40 laboratories in Wisconsin that perform rt-PCR testing, and shows the viruses that have the highest percentage of positive tests.(2)   |
| Influenza-Associated<br>Pediatric Mortality                     | Deaths among children $<18$ years old, with influenza as the cause of associated cause of death. This is a state and nationally reportable condition. (3)  |
| Deaths Due to<br>Pneumonia,<br>SARS-CoV-2,<br>Influenza and RSV | Proportion of deaths due to pneumonia, RSV, influenza, and SARS-CoV-2 are extracted<br>from Vital Records managed by the Office of Health Informatics through ICD-10 codes<br>and death certificate text searches. (4)   |
| Respiratory Viruses<br>by PCR                                   | A molecular laboratory method used to detect nucleic acid (DNA/RNA) in viruses, including influenza and RSV.   |
| Influenza-Associated<br>Hospitalizations                        | Patients hospitalized for >24 hours with a laboratory-identified (by rapid antigen or rt-PCR tests) influenza.(3)  |
| Emergency<br>Department Data                                    | These data are from the National Syndromic Surveillance Program or NSSP. Visit information from almost all EDs in Wisconsin are reported from hospital electronic medical records to NSSP in near-real-time. Diagnoses used included the CDC Broad Acute Respiratory DD v1, the CDC COVID-Specific DD v1, CDC Influenza DD v1, and the CDC Respiratory Syncytial Virus DD v1.(5) |

### Additional Resources

- The CDC Influenza Homepage (https://www.cdc.gov/flu/)
- The National Respiratory and Enteric Virus Surveillance System (NREVSS) (https://www.cdc.gov/surveillance/nrevss/index.html)

#### Data Sources

- 1. CDC Outpatient Influenza-like Illness Surveillance Network (ILINet)
- 2. Wisconsin Laboratory Information Network and CDC National Respiratory and Enteric Virus Surveillance System (NREVSS)
- 3. Wisconsin Electronic Disease Surveillance System (WEDSS)
- 4. Division of Public Health, Office of Health Informatics, Vital Records
- 5. National Syndromic Surveillance Program (NSSP) data from ESSENCE (Electronic Surveillance System for Early Notification of Community Based Epidemics).

